



Express Mail Mailing Label No. EV 689988947 US  
PATENT  
Attorney Docket No. LS5-001

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S): Liu *et al.* CONF. NO.: 4082  
SERIAL NO.: 10/643,752 GROUP NO.: 1637  
FILING DATE: August 19, 2003 EXAMINER: Mummert,  
Stephanie Kane  
TITLE: EVOLVING NEW MOLECULAR FUNCTION

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO/SB/08, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. A Supplemental Partial European Search Report for Patent Application No. 03788662 is cited under C236. An International Search Report for International Patent Application PCT/US06/02420 is cited under C238. In accordance with 37 C.F.R. 1.98(a)(2), only copies of the foreign patent documents and non-patent publications are enclosed.

In addition, Applicants wish to inform the Examiner about the following U.S. patent applications and the contents of their file wrappers:

1. U.S.S.N. 11/351,908 entitled "Evolving New Molecular Function," filed on February 10, 2006;
2. U.S.S.N. 11/586,851 entitled "Evolving New Molecular Function" filed on October 24, 2006;
3. U.S.S.N. 11/336,405 entitled "Free Reactant Use in Nucleic Acid-Templated Synthesis," filed on January 20, 2006, and published on October 5, 2006 as 2006/0223086 A1 (A83).

Information about other patent applications can be found in Applicants' previous Information Disclosure Statement filed for this application.

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**REMARKS**

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☐ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☒ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☒ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**
- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

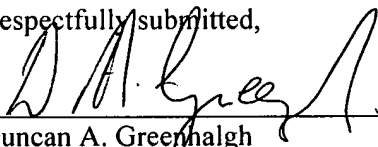
It is respectfully requested that each of the patents and publications listed on the attached Form PTO/SB/08, and other information contained herein, be made of record in this application.

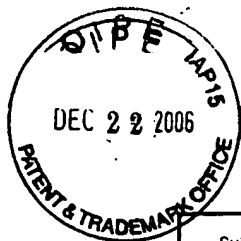
Date: December 22, 2006  
Reg. No.: 38,678

Tel. No.: (617) 570-1299  
Fax No.: (617) 523-1231

VER 11/03  
LIBC/2856480

Respectfully submitted,

  
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PTO/SB/08A/B (09-06)

Approved for use through 03/31/2007. OMB 0651-0031

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Substitute for form 1449/PTO  <b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Complete if Known</b>	
				Application Number	10/643,752
				Filing Date	August 19, 2003
				First Named Inventor	Liu
				Art Unit	1637
				Examiner Name	Mummert, Stephanie Kane
Sheet	1	of	2	Attorney Docket Number	LS5-001

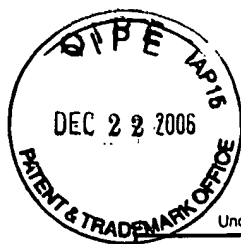
U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Filing Date if Appropriate
	A75	2005/0142583 A1	06/30/2005	Liu <i>et al.</i>	
	A76	2005/0233381 A1	10/20/2005	Liu <i>et al.</i>	
	A77	2005/0227281 A1	10/13/2005	Liu <i>et al.</i>	
	A78	2005/0170376 A1	08/04/2005	Liu <i>et al.</i>	
	A79	7,070,928	07/04/2006	Liu <i>et al.</i>	
	A80	5,449,602	09/12/1995	Royer <i>et al.</i>	
	A81	5,945,325	08/31/1999	Arnold <i>et al.</i>	
	A82	5,637,682	06/10/1997	Nieuwlandt <i>et al.</i>	
	A83	2006/0223086 A1	10/05/2006	Liu <i>et al.</i>	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	B34	WO 93/20242	10/14/1993		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
	C219	Kanavarioti <i>et al.</i> , Journal of Organic Chemistry vol. 64, pgs. 8323-33 (Oct 1999).		
	C220	Letter from Mr. Iver P. Cooper to the Office of Naval Research, dated May 25, 2004.		
	C221	Letter from the Office of Naval Research to Mr. Iver P. Cooper, dated February 1, 2005.		
	C222	Appeal letter and memorandum to the General Counsel of the Navy on behalf of Mr. Iver P. Cooper, dated April 1, 2005.		
	C223	Letter from the Office of the General Counsel of the Navy to Mr. Iver P. Cooper, dated August 5, 2005.		
	C224	Copies of slides 1, 2, 3, and 30 of Professor David Liu's slide presentation entitled "Unnatural Molecule Evolution."		
	C225	Plaintiff's Complaint, filed November 18, 2005, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.		

Examiner Signature		Date Considered	
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Substitute for form 1449/PTO				<b>Complete if Known</b>	
<b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/643,752
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				Examiner Name	Mummert, Stephanie Kane
Sheet	2	of	2	Attorney Docket Number	LS5-001

C226	Defendant's Answer to Plaintiff's Complaint, filed February 10, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C227	Motion of Plaintiff Iver Cooper for Summary Judgment, filed May 15, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C228	Plaintiff's Memorandum of Points & Authorities of Plaintiff Iver Cooper in Support of his Motion for Summary Judgment, filed May 15, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C229	Defendant's Motion for Summary Judgment, filed May 15, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C230	Defendant's Memorandum of Law in Support of Defendant's Motion for Summary Judgment, filed May 15, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C231	Defendant's Opposition to Plaintiff's Cross Motion for Summary Judgment, filed June 21, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C232	Plaintiff's Memorandum of Points & Authorities of Plaintiff Iver Cooper in Opposition to Defendant's Motion for Summary Judgment, filed June 21, 2006, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C233	Defendant's Reply to Plaintiff's Opposition to Defendant's Motion for Summary Judgment, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C234	Plaintiff's Reply in Support of His Motion for Summary Judgment, Iver P. Cooper v. U.S. Department of Navy, Case 1:05-cv-02252-EGS.	
C235	Kang and Rokita, "Site Specific and photo-induced alkylation of DNA by a dimethylantraquinone-oligodeoxynucleotide conjugate," <i>Nucleic Acid Res.</i> (Oct. 15, 1996) 24(20): 3896-902.	
C236	European Supplementary Partial Search Report for European Patent Application No. 03788662 dated February 22, 2006 (2 pages).	
C237	Li <i>et al.</i> (2004) "DNA-templated organic synthesis: nature's strategy for controlling chemical reactivity applied to synthetic molecules," <i>Angewandte Chemie (Intl. Ed. In English)</i> 43(37): 4848-70.	
C238	International Search Report for Application No. PCT/US06/02420 dated July 28, 2006 (3 pages).	
C239	New Engand Biolabs 1998/99 Catalog. Cover and page 284.	
C240	Podyminogin <i>et al.</i> , "Sequence-specific covalent modification of DNA by cross-linking oligonucleotides. Catalysis by RecA and implication for the mechanism of synaptic joint formation," <i>Biochemistry</i> (Oct. 10, 1995) 34(40): 13098-108.	

LIBC/2856484

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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